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Impact of agility ladder training on coordination and speed endurance among football players

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Abstract

The purpose of the study was to assess the impact of agility ladder training on coordination and speed endurance among football players. To achieve the purpose of the study, thirty college football players from Aditanar Educational Institutions, Tiruchendur, Tuticorin, Tamil Nadu, India were selected as subjects. They have participated in the intercollegiate tournaments for their respective, affiliated university of Manonmaniam Sundaranar University intercollegiate football tournaments and Tamil Nadu Physical Education and Sports University intercollegiate football tournaments. Their age ranged from 18 to 25 years. The thirty subjects were divided into two groups of fifteen (15) subjects each. Group I underwent Agility Ladder Training (ALT), group II acted as control they did not participating any activities. Experimental group have training programmes for 12 weeks consisting of 60 morning sessions in addition to their regular programmes in their curriculum design. For that purpose, the coordination and speed endurance selected as dependent variables for this study. Coordination and speed endurance was assessed by juggling test and 150 mts run test. Since no effort was taken to pair the groups in any way and therefore to eliminate the variation in pre-test mean. Analysis of Covariance (ANCOVA) was applied as statistical tool for the present study. Significant at 0.05 level of significance. The data were examined by applying SPSS measurable package in the computer. The results of the study shows that Agility Ladder Training group have improved their coordination and speed endurance compared with control group.

Keywords: Agility ladder training, coordination, speed endurance and football

Introduction

A crucial tool for developing speed, agility, and coordination is the agility ladder. It is simple to put up and travel. The advantages of using the agility ladder in training sessions are being discovered by more and more coaches and trainers. This training makes it easier to be familiar with the wide variety of potential drills and missions and, as a result, to use the agility ladder effectively.

The agility ladder comes in a variety of types and at various price points. The agility ladder works well because:

With the agility ladder, three drill levels have demonstrated their value.

Allow lots of breaks; players should only practise when they are at ease. The instructor should consider the participants' ages and skill levels.

Use the agility ladder regularly (the player's speed, agility and coordination will improve rapidly)

Soccer is played on a larger field than any sport except polo. The field is commonly called a pitch. A regulation game consists of two 45-minute period of almost nonstop action. There are no time-outs and few substitutions. It is not astonishing that soccer players are among the fittest of all athletes.

A Soccer match is played between two teams of 11 players each. Each team defends a goal and tries to score in the opponent's goal.

Statement of the Problem

The purpose of the study was to assess the impact of agility ladder training on coordination and speed endurance among football players.

Methodology

To achieve the purpose of the study, thirty college football players from Aditanar Educational Institutions, Tiruchendur, Tuticorin, Tamil Nadu, India were selected as subjects. They have participated in the intercollegiate tournaments for their respective, affiliated university of Manonmaniam Sundaranar University intercollegiate football tournaments and Tamil Nadu Physical Education and Sports University intercollegiate football tournaments. Their age ranged from 18 to 25 years. The selected thirty subjects were divided into two groups of fifteen (15) subjects each. Group I underwent Agility Ladder Training (ALT), group II acted as control they did not participating any activities. Experimental group have

training programmes for 12 weeks consisting of 60 morning sessions in addition to their regular programmes in their curriculum design. For that purpose, the coordination and speed endurance selected as dependent variables for this study. Coordination and speed endurance was assessed by juggling test and 150 mts run test.

Analysis of Data

The pre and post test data collected from the experimental and control groups on coordination and speed endurance were statistically analyzed by ANCOVA and the results are presented in table-1.

Table 1: Statistically analyzed by ANCOVA and the results are presented

Variable Name	Group Name	Agility Ladder Training Group	Control Group	F ratio
Coordination	Pre-test Mean \pm S.D	42.05 \pm 6.75	42.12 \pm 6.59	0.797
	Post-test Mean \pm S.D.	45.09 \pm 7.12	42.15 \pm 6.98	11.26*
	Adj.Post-test Mean \pm S.D.	54.968	53.198	67.52*
Speed endurance	Pre-test Mean \pm S.D	21.253 \pm 0.56	21.244 \pm 0.63	0.693
	Post-test Mean \pm S.D.	19.068 \pm 0.72	21.251 \pm 0.65	8.12*
	Adj.Post-test Mean \pm S.D.	20.156	21.248	75.28*

* (The required table value for significance at 0.05 level of confidence with degrees of freedom 1 and 27 is 4.21 and degree of freedom 1 and 28 is 4.20.)

*Significant at .05 level of confidence

The obtained 'f' ratio value is 11.26 of coordination was greater than the required table value of 4.21 for the degrees of freedom 1 and 27 at 0.05 level of confidence. Hence it was concluded that due to the effect of twelve weeks of agility ladder training improved coordination of the subjects was significantly.

The obtained 'f' ratio value is 8.12 of speed endurance was greater than the required table value of 4.21 for the degrees of freedom 1 and 27 at 0.05 level of confidence. Hence it was concluded that due to the effect of twelve weeks of agility ladder training decrease speed endurance of the subjects was significantly.

Conclusions

Based on the results of this study the following conclusions were drawn by the investigator. It was concluded that the selected criterion variables such as coordination and speed endurance were significant difference between agility ladder training group and control group of men footballers.

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